In this page:

Specifications

Specifications for a Lithiumate Lite system

Electrical

Absolute Maximum Ratings

Item	Conditions	Min	Nom	Max	Units
Battery isolation				1000	Vdc
AC supply				264	Vac
				370	Vdc
Ignition supply				40.7	Vdc
Cell board supply	balance off	-0.1		7	Vdc
	balance on	-0.1		4.2	Vdc
Charger current sensor		-40		40	A
	1 pulse, 100 ms	-100		100	A
Load current sensor		-900		900	A
Ground side logic output voltage		-0.3		30	V
High side logic output voltage		-0.7		22	V

High side logic output current	Continuous, 70 °C		-2.9	A
	Peak, single pulse		3	A
Low side logic output current	Continuous, 70 °C		4.9	A
	Peak, single pulse		30	A
Meter output voltage		-0.3	5.3	V
Fuel gauge output voltage	≥100 Ω in series	0	30	V

DC specifications

	Item	Conditions	Min	Nom	Max	Units
Power in	**AC input voltage**	AC line	90		264	Vac
		DC (solar panel)	120		370	Vdc
	Ignition input voltage	(1)	9	12	16	V
	AC input current	110 Vac		8	95	mA
		220 Vac		5	50	mA
	Ignition input current	12 Vdc, no ext. loads	50	60	90	mA
		Standby, ignition off			0	mA
	Ignition input fusing			3		A
	Cell board voltage		2		4.2	V
	Cell board current	Standby		2	10	µA
		Operating		150		µA
		Balancing, 3.6 V		200		mA
	Cell board fuse	Manuf. April 2012 +		250		mA
Power out	**5 V supply voltage**		4.78	5	5.21	V

	5 V supply current	AC power			273	mA
		Ignition			940	mA
	5 V short circuit current	AC power			(1)	mA
	12 V supply voltage	AC power	10.4	10.6	10.8	V
		Ignition power, no ext load		Vign - 0.7		V
		Ignition power, 1 A		Vign - 1.0		V
	12 V supply current	AC power, total of all outputs			273	mA
		Ignition power, total of all outputs			3	A
	12 V short circuit current	AC power			(2)	A
Logic outputs	**Ground side voltage**	Switch on, 1 A sink			50	mV
	High side voltage	AC power, switch on, 1 A source	11.3			V
		Ignition, switch on, 1 A source	Vign - 1			V
	Ground side current	Continuous, 70 °C		4.9		A
		100 ms peak		30		A
	High side current	Continuous, 70 °C			-2.9	A
		100 ms peak			3	A
Meter out	**Meter voltage**		-0.3		5.3	V
	Meter source resistance			220		Ω
Measurement	**Cell voltage**	Range	2.09		4.54	V
		Accuracy		10	15	mV
	Charger current	Range	0		30	A
		Accuracy		1	2	%FS
	Load current	Range	-900		+900	A
		Accuracy		1	2	%FS

Temperature (1 / cell)	Range	-30		+70	°C
	Accuracy, 0~40°C		2	4	°C

1) Short circuit protected
2) Unit shuts down below 9 V and above 19 V
3) 3 A internal fuse on the Ignition input

AC specifications

Item	Conditions	Min	Nom	Max	Units
Reading rate			1		Hz
Power-up time	To 1st reading		3		s
Averaging time constant	Cell voltages	1	25	255	s
Response to high current	Current = Peak current setting		10		s
	Current = overcurrent setting		0.1		s
Aquisition rate			1		Hz

USB Port specifications

Item	Nom	Units
Rate	57600	baud
Data	8	bits
Stop	1	bit
Parity	none	bit
Handshake	none	-

Mechanical

Case dimensions	6.7 x 4.05 X 1.23" (170 x 103 X 32 mm)
Case drawing	Unibox 740
Height with mating connectors installed	1.87" (47 mm)
Wire gauge, AC power connector	26~16 AWG (0.2~1.5 mm^2)
Wire gauge, control connector	24~12 AWG (0.34~2.5 mm^2)
Battery current sensor	ring terminals #10 hole (5 mm) I.D. 0.6" (15 mm) O.D. max

Environmental

Sealing	None
Temperature	-40~85 °C
Conducted emissions	FCC part 15 class A
Radiated emissions	FCC part 15 class A